

**Notice of Allowability**

Application No.

10/730,287

Examiner

Douglas C. Godbold

Applicant(s)

SUZUKI ET AL.

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1 August 2007.
2. ☒ The allowed claim(s) is/are 1 and 2.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date <u>20070801</u> | 7. <input type="checkbox"/> Examiner's Amendment/Comment                              |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                   | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### **DETAILED ACTION**

1. This Office Action is in response to correspondence filed August 1, 2007 in references to application 10/730,287. Claims 1 and 2 are pending in the application.

#### ***Response to Amendment***

2. The amendments to the claims and the specification filed August 1, 2007 have been considered and accepted in this Office Action. Claim 3 has been cancelled.

#### ***Information Disclosure Statement***

3. The information disclosure statement filed August 1, 2007 has been accepted and considered in this office action.

### **EXAMINER'S AMENDMENT**

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

The abstract has been amended to read:

The invention makes it possible to detect the characteristics of text data, and to analogize potential hidden meaning in the text data. A word-cutting unit performs a

word-cutting process on the text data input from the input unit, a syntax-analysis unit performs syntax analysis and a thesaurus-creation unit creates thesauruses from the results, then after performing word cutting and syntax analysis again, a thesaurus-sorting unit performs sorting, and a frequency-of-appearance unit calculates the frequency of appearance of the thesauruses, a correlation-coefficient-calculation unit calculates correlation coefficients between thesauruses, a correlation-coefficient-total-calculation unit for each thesaurus calculates the total of the correlation coefficients for each thesaurus, the graph-creation-display unit creates a graph based on the frequency of appearance and total of the correlation coefficients for each thesaurus.

***Allowable Subject Matter***

5. Claims 1 and 2 are allowed.
6. The following is an examiner's statement of reasons for allowance:
7. Consider claim 1, the closest prior art of record is Carlgren et al. (US Patent 5,099,426). Carlgren teaches an information-processing apparatus comprising:
  - an input unit that inputs text data (figure 1, step 20, scan input text);
  - a text-data-memory unit that stores said text data (inherent if a computer is used);
  - a word-cutting unit that executes a word-cutting process on said text data (step 22 make vocabulary list of all words in text);

a syntax-analysis unit that performs a syntax-analysis process on said text data on which said word-cutting process was performed (step 26, look up lemma of each text word in morphology dictionary);

a thesaurus-creation unit that creates thesauruses from said text data on which said syntax-analysis process was performed (step 22 make vocabulary list, step 28 and missing lemmas to vocabulary list);

a thesaurus-memory unit that stores said thesauruses created by said thesaurus-creation unit (inherent if implemented on a computer);

a thesaurus-sorting unit that performs a sorting process on said text data on which said word-cutting and said syntax-analysis were performed (step 34, make word number to lemma number list relating linguistic variants to their lemma);

a sorting-results-memory unit that stores the sorting results from said thesaurus-sorting unit (inherent if implemented on a computer);

a frequency-of-appearance-calculation unit that calculates the frequency of appearance for each thesaurus based on said sorting results stored by said sorting-results-memory unit (step 32 make high frequency word pointer lists... the frequency must be counted to make this list.);

a frequency-of-appearance-memory unit that stores the results calculated by said frequency-of appearance-calculation unit (inherent if implemented on a computer);

wherein said word-cutting unit and said syntax-analysis unit perform said word-cutting process and said syntax-analysis process again based on said thesauruses created by said thesaurus-creation unit (steps 36-44)

but does not specifically teach:

a correlation-coefficient-calculation unit that calculates correlation coefficients between thesauruses;

a correlation-coefficient-memory unit that stores the correlation coefficients between thesauruses that were calculated by said correlation-coefficient-calculation unit;

a correlation-coefficient-total-calculation unit for each thesaurus that calculates the total of the correlation coefficients for each thesaurus;

a correlation-coefficient-total-memory unit for each thesaurus that stores the total of the correlation coefficients for each thesaurus calculated by the correlation-coefficient-total-calculation unit for each thesaurus; and

a graph-creation-display unit that creates and displays a graph based on the frequency of appearance stored by the frequency-of-appearance-memory unit and

the correlation-coefficient totals for each thesaurus stored by the correlation-coefficient-total-memory unit for each thesaurus; and

wherein said word-cutting unit and said syntax-analysis unit perform said word-cutting process and said syntax-analysis process again based on said thesauruses created by said thesaurus-creation unit.

Carlgrén does suggest creating a cross-reference table to link clusters of words, but does not teach calculating a correlation coefficient. Nunkao (US APA 2002/0052730) teaches comparing text passages based on topics, but again no correlation coefficient is calculated. Furthermore, none of the prior art or the combination of art of record does not teach: a graph creation display unit that creates and displays a graph based on the frequency of appearance memory unit and the correlation coefficient totals for each thesaurus stored by the correlation coefficient total memory unit for each thesaurus. Therefore the subject matter of claim 1 is allowable.

8. Claim 2 is allowable as it contains similar limitations to claim 1.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas C. Godbold whose telephone number is (571) 270-1451. The examiner can normally be reached on Monday-Thursday 7:00am-4:30pm Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DCG



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SUPERVISORY PATENT EXAMINER